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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,608

12/24/2003

CHIH-FENG SUNG

10217-US-PA

1607

31561

7590

06/29/2005

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE

7 FLOOR-1, NO. 100

ROOSEVELT ROAD, SECTION 2

TAIPEI, 100

TAIWAN

EXAMINER

TRAN, THUY V

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

Office Action Summary	Application No. 10/707,608	Applicant(s) SUNG, CHIH-FENG	
	Examiner Thuy V. Tran	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment submitted 04/14/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a response to the Applicant's amendment submitted on 04/14/2005. In virtue of this amendment, claims 12-17 are newly added; and thus, claims 1-17 are now presented in the instant application.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-4 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (Pub. No.: US 2003/0122496 A1).

With respect to claim 1, Lee et al. discloses, in Fig. 6, an organic light-emitting display having a plurality of pixels and a plurality of external power lines [P_{mR} , P_{mG} , P_{mB}] and being characterized in that each of the external power lines diverts into a plurality of internal power lines (into elements [230, 260, 242]), and each internal power line is electrically connected to a portion of the pixels, wherein the internal power lines connected to different external power lines are separated.

With respect to claim 2, Lee et al. discloses, in Fig. 6, that the external power lines are coupled to a power source [P].

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With respect to claim 3, Lee et al. discloses, in Fig. 6, that the power source [P] supplies an electric current, and the electric current flows through the internal power lines to reach the pixels.

With respect to claim 4, Lee et al. discloses, in Fig. 6, that the pixels are arranged in a pixel array.

With respect to claim 11, Fig. 6 of Lee et al. shows that the organic light-emitting device comprises an active matrix organic light emitting display.

With respect to claim 12, Lee et al. discloses, in Fig. 6, an organic light-emitting display comprising (1) a pixel array having a plurality of data lines [D_{mR}], a plurality of scan lines [G_n] and a plurality of pixels, wherein each pixel is electrically connected to one of the scan lines and one of the data lines correspondingly, (2) a first external power line [P_{mR}] driving into a plurality of first internal power lines (into elements [230, 260, 242]), wherein each first internal power line is electrically connected to a portion of the pixels, (3) a second external power line [P_{mG}], driving into a plurality of second internal power lines, wherein each second internal power line is electrically connected to another portion of the pixels, and the first internal power lines and the second internal power lines are separated.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 5-10 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (Pub. No.: US 2003/0122496 A1) in view of Troutman (U.S. Patent No. 6,157,356).

With respect to claims 5 and 13, Lee et al. discloses all of the claimed subject matter, as expressly recited in claims 1 and 12, except that each of the pixels comprises (i) a switching transistor having a first drain electrode, a first gate electrode, and a first source electrode, wherein the first drain electrode is coupled to a data line, and the first gate electrode is coupled to a scan line, (ii) a driving transistor having a second drain electrode, a second gate electrode, and a second source electrode, wherein the second source electrode is grounded, (iii) a storage capacitor having a first terminal and a second terminal, wherein the first terminal is coupled to the first source electrode and the second gate electrode, and the second terminal is grounded and coupled to the second source electrode, and (iv) a light-emitting device having an anode and a cathode, wherein the anode is coupled to one of the internal power lines and the cathode is coupled to the second drain electrode.

Troutman discloses, in Figs. 1A and 1B, that each of the pixels comprises (i) a switching transistor [102] having a first drain electrode, a first gate electrode, and a first source electrode, wherein the first drain electrode is coupled to a data line [112], and the first gate electrode is coupled to a scan line [110], (ii) a driving transistor [106] having a second drain electrode, a second gate electrode, and a second source electrode, wherein the second source electrode is grounded, (iii) a storage capacitor [104] having a first terminal and a second terminal, wherein the first terminal is coupled to the first source electrode and the second gate electrode, and the second terminal is grounded and coupled to the second source electrode, and (iv) a light-emitting

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device [108] having an anode and a cathode, wherein the anode is coupled to one of the internal power lines (from V_b ; see Fig. 1A) and the cathode is coupled to the second drain electrode.

It would have been obvious to one of ordinary skills in the art at the time of the invention to modify the display device of Lee et al. by arranging a structure of the pixels as recited above so as to enable gray scale operation of the display since such a configuration of the pixels for the stated purpose has been well known in the art as evidenced by the teachings of Troutman (see col. 1, lines 7-8).

With respect to claim 6, the combination of Lee et al. and Troutman discloses that one terminal of each of the internal power lines is coupled via the external power line to a positive power source (see Troutman; Figs. 1A-B).

With respect to claims 7 and 14, the combination of Lee et al. and Troutman discloses that the switching transistor [102] comprises a thin film transistor (see Troutman; col. 2, lines 25-28).

With respect to claims 8 and 15, the combination of Lee et al. and Troutman discloses that the driving transistor [106] comprises a thin film transistor (see Troutman; col. 2, lines 25-28).

With respect to claims 9 and 16, the combination of Lee et al. and Troutman discloses that the light-emitting device comprises an organic light-emitting diode [108] (see Troutman; Figs. 1A-B).

With respect to claims 10 and 17, the combination of Lee et al. and Troutman discloses that the light-emitting device comprises a polymer light-emitting diode (see Troutman; col. 2, lines 23-24).

Citation of relevant prior art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Asana et al. (Pub. No.: US 2002/0190924 A1) discloses an active matrix display.

Prior art Koyama (U.S. Patent No. 6,760,004) discloses a matrix display.

Remarks and conclusion

6. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

As addressed above, the cited prior art to Troutman is still applicable to be combined with the teachings of a newly cited reference to Lee et al., with respect to claims 5-10 and 13-17, since the configuration of the pixels of Troutman can enable gray scale operation of the display.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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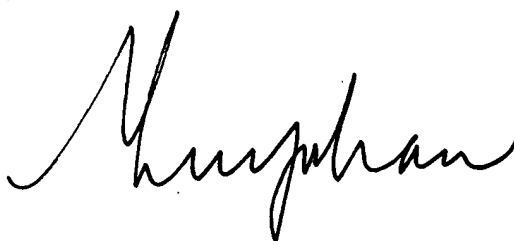
Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

06/27/2005

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', is written in a cursive style.

**THUY V. TRAN
PRIMARY EXAMINER**